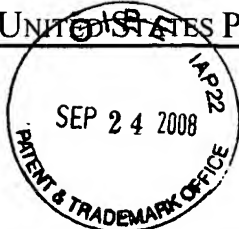




UNITED STATES PATENT AND TRADEMARK OFFICE



Ijw

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/586,292	07/13/2006	Tiam Fatt Tey	PA040005	3077
------------	------------	---------------	----------	------

36269 7590 09/11/2008
JOYCE LILLIAN STROUT
34 PROSPECT ST.
NEWARK, OH 43055

EXAMINER

TRAN, PABLO N

ART UNIT	PAPER NUMBER
----------	--------------

2618

MAIL DATE	DELIVERY MODE
-----------	---------------

09/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/586,292	Applicant(s) TEY ET AL.	
	Examiner Pablo N. Tran	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 8 is rejected under 35 U.S.C. 102(e) as being anticipated by Ammar et al. (hereinafter "Ammar", US Pat. No. 20050124307).

As per claim 8, Ammar disclosed a RF unit comprising a tuner (see Fig. 3/no. 114b), a demodulator (see Fig. 3/no. 172) and a mixer (see Fig. 3/no. 122, 154), wherein the tuner or the tuner and the mixer are arranged on a first substrate (see Fig. 1/no. 102) and the mixer and the demodulator or the demodulator are arranged on a second substrate (see Fig. 3/no. 106), wherein the RF unit further comprises a housing having a single frame (see Fig. 3/no. 100) at least partly accommodating the first and/or second substrates, wherein the first and second substrates are arranged on respective different levels, and that means are provided to maintain a predetermined distance between the first and the second substrate.

As per claim 9, Ammar disclosed wherein connectors are provided, connecting the first and the second substrate (see paragraph, 0005).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ammar et al. (hereinafter "Ammar", US Pat. No. 20050124307) and in view of Hayles (WO 92/03031A1).

As per claim 9, Ammar disclosed such connection for the first and second substrates (see paragraph, 0005, 0055) but not explicitly a connector. However, Hayles disclose such stacked substrates and wherein connectors are provided for connecting substrates (see Fig. 7, pg 5/ln. 1-pg. 9/ln. 8). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention for Ammar to utilize such circuitries arrangement, as taught by Hayles, to provide such high density packaging in order to reduce space.

As per claim 10, the modified apparatus of Ammar and Hayles further disclosed the connectors are provided along at least one side of the respective first and/or second substrate in an essentially linear arrangement (see Hayles, Fig. 5, 7).

As per claim 11, the modified apparatus of Ammar and Hayles further disclosed means maintaining a predetermined distance between the first and the second substrate include the connectors (see Hayles, Fig. 5, 7).

As per claim 12, the modified apparatus of Ammar and Hayles further disclosed the housing is shielding electromagnetic radiation. (see Hayles, Fig. 5, 7).

As per claim 13, the modified apparatus of Ammar and Hayles further disclosed the first and the second substrates are separated by an intermediate shielding. (see Hayles, pg. 1/ln. 6-21, pg 5/ln. 1-pg. 9/ln. 8).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pablo Tran whose telephone number is (571)272-7898. The examiner normal hours are 9:30 -5:00 (Monday-Friday). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571)272-7899. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) System. Status information for Published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-directauspto.gov>. Should You have questions on access to the Private PAIR system, contact the Electronic

Application/Control Number: 10/586,292

Page 5

Art Unit: 2618

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (in USA or CANADA) or 571-272-1000.

September 10, 2008

/Pablo N Tran/

Primary Examiner, Art Unit 2618

Notice of References Cited	Application/Control No. 10/586,292	Applicant(s)/Patent Under Reexamination TEY ET AL.	
	Examiner Pablo N. Tran	Art Unit 2618	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2005/0124307	06-2005	Ammar et al.	455/183.2
*	B	US-6,072,992	06-2000	Mishima et al.	455/76
*	C	US-2008/0136559	06-2008	TAKAHASHI et al.	333/167
*	D	US-2007/0207734	09-2007	Briere, Michael A.	455/41.2
*	E	US-2006/0276158	12-2006	Okabe, Hiroshi	455/333
*	F	US-2006/0009251	01-2006	Noda et al.	455/550.1
*	G	US-2004/0203528	10-2004	Ammar et al.	455/090.3
*	H	US-6,670,926	12-2003	Miyasaka, Toshiki	343/702
*	I	US-6,653,885	11-2003	Wu et al.	327/356
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

IP6 Rec'd PCT/PTO 13 JUL 2006

PTO/SB/08b(08-03)

Approved for use through 07/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Application Number	
		Filing Date	10/586292
		First Named Inventor	Tiam Fatt Tey et al.
		Art Unit	
		Examiner Name	
Sheet 2 of 2	Attorney Docket Number	PA040005	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		COPY OF SEARCH REPORT DATED JUNE 27, 2005	

Examiner Signature	/Pablo Tran/	Date Considered	09/10/2008
-----------------------	--------------	--------------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.
This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

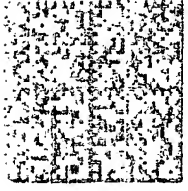
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /PT/

Organization **IC 2600** **KNOX** Bldg/Rm
J. S. Department of Commerce
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
f Undeliverable Return in Ten Days

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

AN EQUAL OPPORTUNITY EMPLOYER



Postage
\$0.17
US POSTAGE

RECEIVED
SEP 24 2008
USPTO MAIL CENTER

